

In times of crisis invest in maturity – results of an assessment in Iceland

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Abstract

Following the collapse of the banking system in October 2008, Iceland has faced numerous challenges. Major changes are being made to some of the foundations of the society, for instance the banking sector, but questions have been raised on further basic changes in government and ministries, e.g. merging of ministries and official institutions, in order to increase efficiency, reduce cost and increase the capability of the government to deal with the present and future emerging situations. But given the new impetus on increasing efficiency, what is the status of project management maturity within the ministries? In order to foster effective improvement, there is a need to gain an understanding of the current state and capabilities. The project management maturity of Icelandic ministries was assessed in a simple way by looking at five of the twelve ministries in detail. The average maturity score of all the studied ministries is only 1,3 out of five. There would therefore seem to be a potential for considerable improvement in project efficiency and project results within the ministries. The paper argues that rather than cutting projects, the current focus needs to shift to creating and establishing capabilities that will underpin and sustain future improvement. Project management is central to economic recovery and developing the right balance of capabilities will deliver improvement in the long run and play a key part in delivering a new and improved future. In doing so it will also rehabilitate the profession and its reputation.

Keywords—Project management, project management maturity, Project capability, Ministries of Iceland.

Introduction

Iceland was hit by the international financial crisis in the fall of 2008 when the three major banks, Glitnir, Landsbankinn and Kaupthing were taken over by the government. The known reason was that the banks were unable to finance their debts despite having substantial assets. The size of the banking system had grown to the point of being much larger than the national economy of Iceland and the Icelandic control institutions were not powerful and capable enough to control the financial institutions (Editors: Hreinsson P. et.al., 2010). The consequences were drastic for the Icelandic economy and society. External debt increased drastically and there were instantaneous and sharp increases in unemployment, a raise in inflation and the collapse of the Icelandic krona.

The BBC pointed out that Iceland was the first industrialized country to request help from the International Monetary Fund in over 30 years (Danielsson, 2008). The Economist wrote that Iceland's banking collapse was the biggest that any country had suffered in relation to the size of its economy (Anonymous, 2008). Icelanders demanded investigations and retribution. When the demands were not responded to quickly enough, citizens began to protest in front of the parliament building. The Financial Times reported that the events that took place in early 2009 could be described as revolution (Jackson, 2009). The government was forced to step down in February 2009. A new government led by Social Democrats and Left Greens was elected with the promise to reconstruct the economy, and by implications to re-organise the national infrastructure.

But how well are the Icelandic authorities equipped to keep that promise? In times of austerity the focus on increasing efficiencies becomes even more critical. Assessing project management maturity is a simple and effective way to measure the status of project management in organizations, plan for improved processes and implement those improvements for better and more efficient project management. This paper gives a brief overview of methods to assess organizational maturity but the main focus is on an assessment of the project management maturity within the ministries of Iceland, more specifically in five of twelve ministries. The assessment was done by a group of students in the MPM program (Master of Project Management) at the University of Iceland. For comparison with the outcome of the assessment, recent official reports related to the Icelandic governance system will be referred to.

The paper continues by exploring the theoretical background and the role of maturity models. It then explains how the assessment of maturity was carried out in the ministries in Iceland before discussing the findings and some of their implications. The conclusion finally draws on the strengths of the assessment model and its ability to identify multiple areas of strengths and weaknesses providing a more detailed roadmap to improvement.

Theoretical background

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The concept of assessing the maturity of organizations was first presented by Philip Crosby in his famous book *Quality is free* (1979) where he put forward the quality management maturity grid. This was a simple tool organizations could use to assess their status in basic aspects of quality management and utilise this assessment as a guiding light in continuous improvement. The oldest process maturity model was developed in software industry. This was the CMM (capability maturity model), developed in Carnegie Mellon university and based on a method presented by Watts Humphrey in 1987 initially devised to assess the capability of Department of Defence contractors to develop software in accordance with modern software engineering methods. The model is attributed to the Software Engineering Institute - SEI of Carnegie Mellon. This is a model for assessing maturity of certain processes that are typical for organizations in the software industry. It consists of five levels, each characterised by key process areas which specify the key areas needed to elevate processes to that level. CMM can be used internally for software process assessments, or externally for capability evaluations. The model has been expanded and refined (resulting in CMMi, Capability maturity Model Integration, which integrates a range of maturity schemes) to develop multiple architectures and approaches for measuring capability, as well as maturity.

The project management community expanded the concept to create project management maturity models including the OPM3 model (Organizational Project Management Maturity Model) developed by Project Management Institute (2008), the Prince2 Maturity Model and the P3M3 model (portfolio, program and project management maturity model) developed by the British government (Redmond, 2008). Grant and Pennypacker (2003) discuss a number of maturity models that have been presented since 1985. They point out how maturity model can be of use to compare success within organizations, between them and within industries. Such information can also be used to compare outcome between periods and assess if the organizations have improved or not. Cooke-Davies and Arzymanow (2003) discuss the project management maturity in different business sectors and report on a survey where the maturity of six different sectors was assessed and compared.

Crawford (2006) describes a project management maturity model that can be used in a simple way in all organizations. The model is based on the five generic levels of maturity derived from the CMM and the nine knowledge areas of PMBok (PMI, 2008). Figure 1 shows a representation of this simple model.

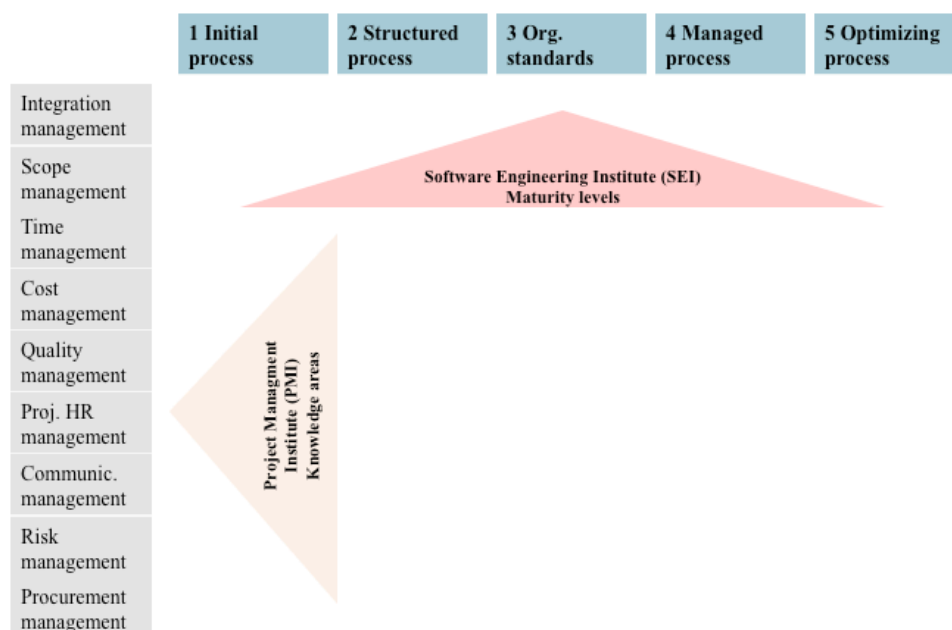


Figure 1 Project management maturity model based on five maturity levels (SEI) and nine knowledge areas (PMBok) (Crawford, 2006).

The model is simply used by viewing the particular organization for each of the nine knowledge areas on the five level meter through answering a set of questions which helps to determine the respective level of maturity for each area.

An assessment of the ministries in Iceland

There are twelve ministries in Iceland, led by the Prime Ministry. Most of them have traditional functional organization, with authority and responsibility in the top part of the organogram and distributed vertically through departments and offices. The only exception to this is the ministry of transport with a matrix structure. A total of 215 official institutions are financed by the state budget and report directly to the twelve ministries (Kjartansdottir, 2009).

The survey focused on five of the twelve ministries and was aimed only at the ministries but not at the institutions that report to those ministries. The ministries are the Prime Ministry, the Ministry of Education, Ministry of Transport, Ministry of Health and Ministry of Industry, all crucial to the growth and well being of the country. The survey was done through structured interviews using standardized questionnaires that had been put together

based on the maturity model (Crawford, 2006). Each interview was done by two students (typically experienced project managers seeking a formal qualification) and those interviewed were high ranking managers in the ministries, one for each ministry. None of them had the title project manager but they all have a good overview of their ministries. The results for the project management maturity for the nine knowledge areas for each ministry are shown in Figure 2. Theoretical low is 1 and theoretical high is 5.

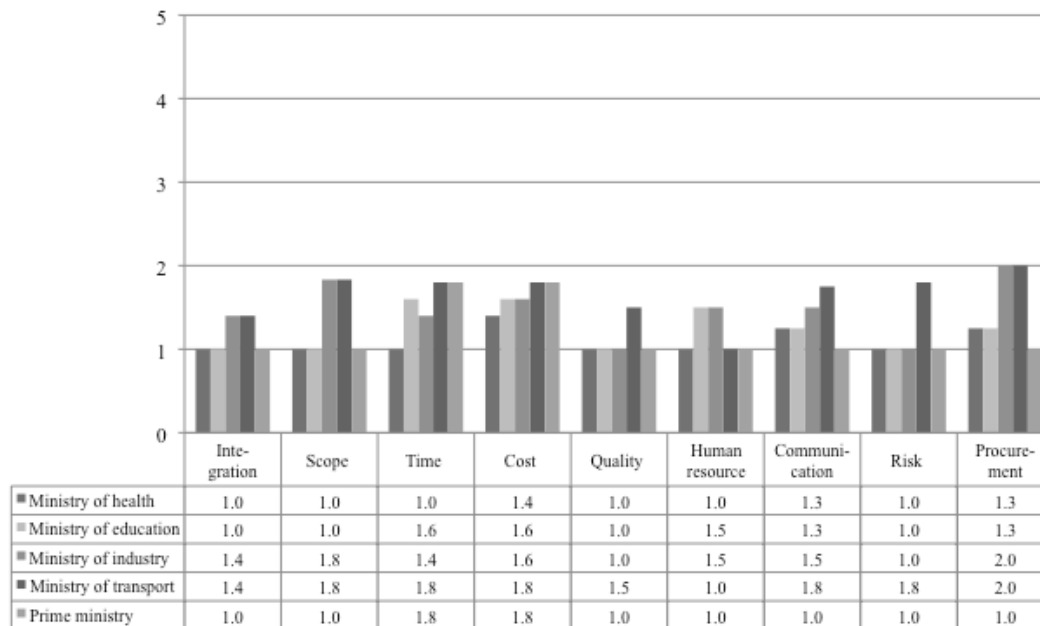


Figure 2 Project management maturity in five Icelandic ministries (Halldórsson et.al., 2010).

The average value in Figure 1 is 1,3 and this represents an indication of the project management maturity in all of the Icelandic ministries on the basis of the five studies ministries. For comparison, the students did their own assessment of the project management maturity in all of the Icelandic ministries. Their own assessment was based on their expert knowledge of project management and their general perception as citizens. Their perception is primarily based on coverage in the news in newspapers, radio, television and on the internet and on their general impression in the exposure they had to experts within the ministries during the data accumulation, Figure 3 shows these results in a radar chart and compares the average of project management maturity for all the ministries and the assessment by the student group.

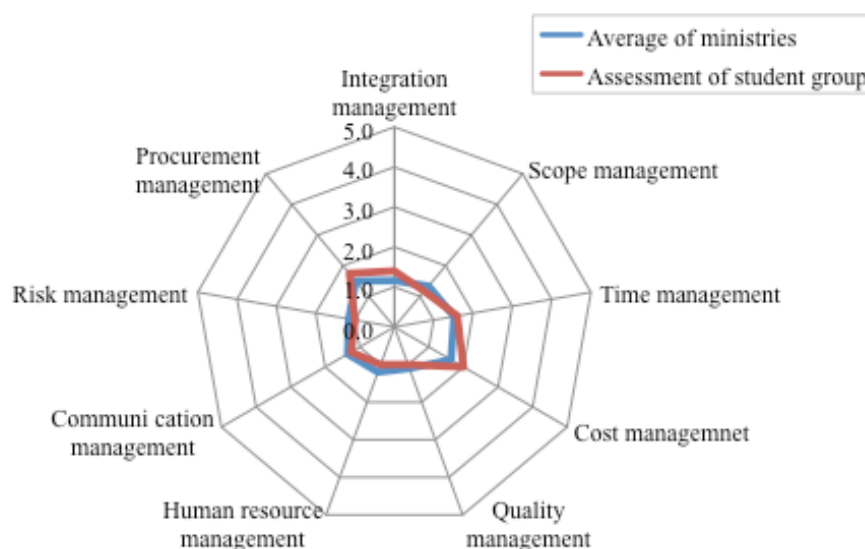


Figure 3 Project management maturity of ministries in Iceland, comparison of average of ministries (based on interviews) and the assessment of the student group (Halldorsson et.al., 2010).

Discussion

First it should be stressed that the results presented in figures 2 and 3 reflect only an assessment of the project management maturity of the ministries in question and include no indications of other management practices. The results show that the project management maturity is very low and the only ministry with some project management processes is the ministry of transport. This ministry has the highest score for project management maturity or 1,65 in average. For comparison, the ministry of industry came next with 1,47. The ministries with the lowest scores have

very little project management awareness. The assessment done by the student group is concurrent with the results from the interviews; the ministries in Iceland have not implemented project management practices to any significant extent. Looking at individual areas, the highest score is for cost management where the average for all ministries is 1,6. This counts as low on the project management maturity scale and this is in harmony with the general conclusion of the National Audit Office (2009) regarding the financial management of the ministries for year 2009 that most ministries and institutions did not deliver their budget in time, before the end of year 2008. The lowest average is for management of quality (1,1) followed by human resource management and risk management (1,2). This is in harmony with the observation by Kjartansdottir et.al. (2009) that it was sometimes difficult to understand the organization of the ministries and their institutions on the basis of their organograms. Reference is also made to a report by a special research committee by the Icelandic parliament, established to investigate the causes of the collapse of the Icelandic banks in October 2008 (Editors: Hreinsson P. et.al., 2010). Chapter 8 of this report discusses e.g. the operating procedures in the Icelandic ministries. It contains an interesting description of the work of a collaborative work group across ministries. This group coordinated the participation of Iceland in a Nordic financial disaster drill in September 2007. This was a very important project for the Icelandic ministries but it was not brought to an end in Iceland. It seems that the objectives for participation were not clear, the organization was unclear and the processes for decision making were broken. A discussion on communication within the collaborative group reveals an incredible lack of trust between the ministries and it seems that there was no sufficient will within the participating ministries to conclude the project. All the data and the additional sources seem to support the general conclusion that the project management maturity of the ministries in Iceland is very low.

Conclusion and next steps

In times of austerity, it becomes important to gain a better understanding of the processes in place and to determine where waste and inefficiencies jeopardise future performance. Maturity models are useful in providing a simple tool for benchmarking performance capability and identifying shortfalls. Indeed when cuts become inevitable, reducing inefficiencies and waste can play a key part in generating additional saving or in not wasting resources).

In general, there seems to be very little awareness of project management within the Icelandic ministries and implementation of project management processes is quite limited. A similar picture can be identified across a range of different ministries and areas, including the areas of risk management, quality and HR, which are becoming better understood in most countries. Indeed, it is surprising that risk management for example is showing so few signs of development, while so much literature is available in that area.

While the study has only looked at five out twelve ministries (41.6 percent) it is viewed as reasonably representative of the ministries sector in Iceland (as confirmed by the group assessment of the sector). Moreover given the fact that some of the key ministries are represented, it is not likely that pockets of excellence will be found in the ministries that were not included. Indeed, the ministries that participated are typically recognised as more competent in delivering projects.

Given the public profile of the ministries it is not surprising that cost management and procurement management figure so highly and appear to be more mature. It is disappointing to see that scope management is not understood at a deeper level that will anticipate higher order of benefits, which inevitably will impact on costs and cancellations further down the line. However even cost management was not rated as higher than level 2.

The current financial crisis and the resulting restructuring, call for significant savings in all areas. In addressing the need for such savings projects and programmes are often simply cancelled to deliver immediate savings. The findings from our work indicate that in order to deliver savings a more fundamental investment in improving delivery is needed. Cancellation is not really the answer. Benefits are required in many areas. What needs to be addressed is the significant shortfall in performance. Inability to complete projects is often symptomatic of sub-standard processes. Simply cancelling some projects, will lead to short terms savings, but fails to address the underlying lack of project competence and capability. A key lesson here is before we cut we may need to invest to improve performance. Improving the delivery track record for the ministries is likely to require additional investment in infrastructure development, rather than the elimination of small and less important undertakings. It is only when we address the essence that we can make an overall difference to performance and start to consider continuous improvement to capability.

Project management is widely used worldwide in all kinds of organizations and its importance has been emphasised in the last three decades. The ministries in Iceland should apply best practices in their operations (Birgisson, 2008). Indeed as has been shown by this work, they have a huge potential for improving their efficiency and capability for preparing and executing different kinds of projects, by implementing project management methodology in a structured and systematic way. Through careful and guided development we can begin to address the needs of the country and ensure that more projects are started properly and completed. In the long run this will make a greater impact on the future of the society that we develop. It will also ensure that the profession and discipline of project management are allowed to grow and develop unconstrained by their current, and somewhat immature status. Indeed, in order to escape the paradox where immaturity breeds cancellations forcing further savings, we need to invest now in improving maturity to deliver improved results for sustained future performance.

The study further highlights the patchy nature of maturity and capability. Searching for a single level or maturity is not attainable. Deriving a more comprehensive assessment which offers a more detailed map of performance in a number of key areas is more useful. For example overlaying the nine areas of the PMBok provides a mapping of performance in nine areas rather than a single score. Such mapping enables organisations to select a

single process area and focus on developing and enhancing their capability in that area. Capability can thus be used to indicate improvement relative to individual process areas. Whilst providing increased visibility this also enables improvement on a small scale that can be honed and expanded. It also offers a range of additional benefits including the provision of a road map to organisational improvement that is tailored to specific needs, the ability to improve specific trouble spots, the capability to select several closely aligned areas for improvement that can be deemed relevant or important. Furthermore, the approach is scalable enabling smaller organisations, or controlled expenditure efforts focused on essential needs as well as offering an opportunity to improve different processes, or capability areas at different rates. Focusing on the range of capabilities enables a greater freedom in selecting where and when to improve. It also reminds us that capability improvement is not about a badge or a level, but about delivering sustained results and improved performance through the selection of the most feasible and applicable route to improving efficiency and performance capability.

While the results obtained through this study are viewed as indicative, the importance of savings at this time of financial constraints suggests that greater scrutiny is needed. Improving performance for the future relies on making the right choices now and the plan for savings need to be informed by an understanding of capabilities and the need to foster them. Smart and targeted investment can transform the ministries in Iceland. The next step would be to do a more extensive assessment of the status of project management within the ministries and their institutions. The results from this assessment would then be used for planning and implementing standardized project management practices within the ministries. Improved capability, and the resulting improvement in performance, can thus begin to underpin the movement towards growth on the road to economic, financial and professional recovery.

Acknowledgements

The authors would like to thank David Kristjan Halldorsson, Gudmunda Kristjansdottir, Lovisa Lilliendahl, Steinunn Linda Jonsdottir and Valgerdur Helga Schopka for a good report in the course Project management in different business sectors. They graduated from the MPM program at the University of Iceland in June 2010. They would also like to acknowledge the support and time of senior representatives from the five ministries included in this study.

References

- Anonymous (2008). Cracks in the crust; Iceland. *The Economist*. London: Dec 13, Vol. 389, Iss. 8610; Pg. 81.
- APM Knowledge (2007). *Models to Improve the Management of Projects*. High Wycombe: Association for Project Management
- Cooke-Davies T.J. & Arzymanow A. (2003). The maturity of project management in different industries: An investigation into variations between project management models. *International Journal of Project Management*. Vol. 21, pp. 471-478.
- Crawford, J. (2006). The project management maturity model. *Information System Management* , 23 (4), 50-58.
- Crosby, Philip (1979). *Quality is Free*. New York: McGraw-Hill.
- Danielsson, J. (2008). Why raising interest rates won't work. BBC News, Retrieved November 26, 2009 from <http://news.bbc.co.uk/2/hi/business/7658908.stm>
- Editor: Sean Redmond (2008). *Portfolio, Programme and Project Management Maturity Model*. P3M3 Public Consultation Draft v 2.0. Office of Government Commerce. London.
- Editors: Hreinsson P., Benediktsdottir S. & Gunnarsson T. (2010). Events leading up to the collapse of the Icelandic banks in 2008 (in Icelandic). Chapter 8 - ethical aspects and work procedures (Authors: Arnason V., Nordal S. & Astgeirsdóttir K.). Research committee appointed by the Icelandic Parliament.
- Grant, K. P., & Pennypacker, J. S. (2006). Project management maturity; An industry benchmark. *Project management journal* , 1 (34), 4-11.
- Halldorsson D.K., Kristjansdottir G., Lilliendahl L., Jonsdottir S.L. & Schopka V.H. (2010). *Evaluation of Project Management Maturity in Ministries of the Icelandic Government (student report)*. MPM. University of Iceland.
- Humphrey, Watts (1989). *Managing the Software Process*. Addison Wesley.
- Jackson, R. (2009). A cold wind in Iceland; A year after the country's economic crisis there is still shock, anxiety, frustration, fear and rising anger. *Financial Times*. London (UK): Oct 10, 2009. pg. 17.
- Kerzner H. (2009). *Project Management: A Systems Approach to Planning, Scheduling, and Controlling* 10th edition. Wiley.
- Kjartansdottir A. Gunnarsdottir G.G., Garðarsdottir G.D., Arnorsdottir M.E., Franks A. & Hjorvar S. (2009). *Organization of ministries and institutions - assessment (in Icelandic)*. Stjórnmal og stjórnsýsla - vefimarit. 2. tbl. 5. árg. Stofnun stjórnsýslufræða og stjórnmála, Háskóla Íslands.
- National Audit Office (2009). *Financial management of ministries and submission of financial plans (in Icelandic)*. Report to the Parliament.
- PMI (2008). *A Guide to the Project Management Body of Knowledge 4th Edition*, Project Management Institute.
- PMI (2008). *Organizational Project Management Maturity Model 2nd Edition*, Project Management Institute.
- Project management: Haraldur I. Birgisson (2008). *Management procedures of official companies - Guidelines*. Guidelines issued by the Iceland Chamber of Commerce, Nasdaq OMX Icelnad and the Confederation of Icelandic Employers. Iceland Chamber of Commerce.